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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,539	02/19/2004	Loren D. Vredevoogd	026032-4696	3262

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EXAMINER

NGUYEN, CUONG H

ART UNIT	PAPER NUMBER
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3661

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07/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/782,539	Applicant(s) VREDEVOOGD ET AL.	
	Examiner CUONG H. NGUYEN	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13, 15-20 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 14, 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is the answer to the REMARK received on 4/07/2008.
2. Claims 10-24 are pending in this application; claims 1-9, and 25-28 were canceled.

Response

3. The examiner maintains previous rejections since the pending claimed language are not changed comparing to previous pending claims. The examiner respectfully submits that applicants' claimed language are met by cited prior art, noticing that these prior art are in similar field of application (i.e., comparing received wireless signals with predetermined signals and making a decision on that comparison).

Applicants argue that cited prior art does not teach or suggest “a memory configured to store a plurality of predetermined signal patterns, each predetermined signal pattern associated with a unique tire position of the vehicle...” (see “REMARKS” page 6, 2nd para.); however, applicants claim a system with a memory; this is a physical component that is required for claimed system (therefore, a storage device is obvious to store signal pulses – this feature is very obvious). It is a very well-known fact that a memory can store data – whether those data are specific “signal patterns” or not. A system that contain a memory would meet this claimed feature, and cited reference I and II both contain memory storages.

“ All that is required to show obviousness is that the applicant “make his claimed invention merely by applying knowledge clearly present in the prior art. Section 103 requires us to presume full knowledge by the inventor of the prior art inn the field of his endeavor.” In re Winslow, 53 CCPA 1574, 1578, 365 F.2d 1017, 10020, 151 USPQ 48, 50-51 (1966).

Inn re McLaughlin, 170 USPQ 209 (CCPA 1971)

The test for combining references is not what the individual references themselves suggest but rather what the combination of the disclosures taken as a whole would suggest to one of ordinary skill in the art.

Inn re Kuderna, 165 USPQ 575 (CCPQ 1970)

The Court must approach the issue of patentability in terms of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of the first one and then another of the isolated teachings in the art.

In re DeLisle, 160 USPQ 806 (CCPA 1969)

A reference is to be considered not only for what it expressly states, but for what it would reasonably have suggested to one of ordinary skill in the art.

In re Conrad, 169 USPQ 170 (CCPA 1971)

The test for obviousness under 35 U.S.C. 103 is not the express suggestion of the claimed invention in any or all of the references but what the references taken collectively would suggest.

Response to applicant's argument that there is no suggestion to combine:

The examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re Simon, 174 USPQ 114 (CCPA 1972); In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they

suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969).

Claim Rejections - 35 USC § 112

4. *Independent claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

Independent claim 10: A system for determining the position of a tire on a vehicle using a periodically transmitted signal, the system comprising:

- a. a transmitter circuit associated with the tire configured to transmit a plurality of signal pulses in the time the associated tire completes approximately one rotation;
- b. a receiver circuit configured to receive the plurality of signal pulses;
- c. a memory configured to store a plurality of predetermined signal patterns, each predetermined signal pattern associated with a unique tire position on the vehicle; and
- d. a processing circuit configured to compare the plurality of signal pulses to at least one of the predetermined signal patterns, and to determine the position of the tire on the vehicle based on the comparison.

The examiner submits that in claim 10, limitation a. is not clear because if vehicle's speeds are different, for different “one rotation”, different numbers of “a plurality of signal pulses” would be recorded in a duration of time; therefore, it is unclear to make comparison of stored pattern(s) of pulses – in another word, which pattern would be used for comparison with obtain signal pulses because for different speeds “the time” would be different with different “one rotation”.

About limitation c., “configured to store ...patterns” is already inherent in a memory’s capability; cited references’ memory storages can store patterns.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Pending claims 10-13, 15-20, and 22- 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breed et al. (US Pat. 6,988,026), in view of Sawafuji (US Pub. 2003/0107481 A1), and in view of Macecek et al. (US Pat. 5,095,744).

The examiner submits that the key invention that clearly declares in independent claims 10, and 18 (a broader claim) is: determining the position of a tire on a vehicle using a periodically transmitted signal, or using signal pulses.

Breed et al. show that claimed concept in col. 13 lines 61-65, col. 76 lines 11-28, and using pattern recognition technology. It is clear that in order to use that pattern recognition technology, Breed et al.’s system contain memory storages.

Sawafuji clearly discloses that “even when the positions of the tires are changed, the receiver can easily identify the tire that corresponds to the received data” (see Sawafuji, the abstract). In these above pending claims, the applicants claim a system to determining the position of a tire on a vehicle using signal pulses; including receiving signal pulses from a

transmitter associated with the tire in the time the tire completes approximately one rotation, providing a predetermined signal pattern associated with a unique tire position on the vehicle, and comparing signal pulses to the predetermined signal pattern to determine the position of the tire on the vehicle – this is obviously done by the teaching of Breed et al. (US Pat. 6,988,026), in view of Macecek et al. (US Pat. 5,095,744).

.Macecek et al. (US Pat. 5,095,744) also teach what applicants claimed by using initially comparing values of the data from the receiver 104. If the present test pattern length does not exceed a maximum value, a decision step 454 causes the data for the receiver 104 to be processed using the present test pattern length; and using pulses of ultrasound at various locations to locate a specific tire (see Macecek et al., claim 20).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Breed et al., Sawafuji, and Macecek et al. to determining the position of a tire on a vehicle using a periodically transmitted signal, or using signal pulses and predetermined signal patterns for the advantage of recognizing individual pattern of each tire to accurately, and quickly knowing position of a tire in a vehicle.

6. Dependent claims 14, and 21 are objected because they are dependent on rejected based claims 10, and 18.

Conclusion

7. Pending claims are not patentable.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759 (email address: cuong.nguyen@uspto.gov). The examiner can normally be reached on 9:30 am -

5:30 pm.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Please provide support, with page and line numbers, for any amended or new claim in an effort to help advance prosecution; otherwise any new claim language that is introduced in an amended or new claim may be considered as new matter, especially if the Application is a Jumbo Application.

/CUONG H. NGUYEN/
Primary Examiner
Art Unit 3661